



NXR-200~630  
Electronic Overload Relay

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# User Instruction

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## Safety Warning

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- ① Only professional technicians are allowed for installation and maintenance.
- ② Installation in any damp, condensed-phase environment with inflammable and explosive gas is forbidden.
- ③ When the product is being installed or maintained, the power must be switched off.
- ④ You are prohibited from touching the conductive part when the product is operating.



## 1 Use Purpose

NXR-200, NXR-630 electronic overload relay (hereinafter referred to as relay) is applicable to circuits with frequency of AC 50Hz or 60Hz, rated operating voltage up to 690V and current from 80A to 630A. It is used for overload protection and phase-failure protection of 3-phase AC motor. It can also be used with corresponding contactor to act as magnetic starter.

## 2 Main Technical Parameters

2.1 See Table 1 and Table 2 for product technical parameters

**Table 1 Environmental conditions**

Environmental conditions	
Ambient temp. (°C)	-5°C ~ +40°C, average temperature should not exceed +35°C within 24h
Hot and humid atmospheric conditions	Relative humidity should not exceed 50% at +40°C; up to 90% at +20°C;
Altitude	No influence below 2000m
Pollution class/installation category	Class 3/III

**Table 2 Technical parameters**

Technical parameters					
Model	NXR-200		NXR-630		
Phase-failure protection	Yes		Yes		
Reset function	Manual reset		Manual reset		
Release indication	Yes		Yes		
Test function	Yes		Yes		
Emergency stop function	Yes		Yes		
Setting current range (A)	80-160	100-200	125-250	200-400	315-630
Matching contactor	NXC-120~225		NXC-265~400		NXC-500~630
Auxiliary contacts	1NO+1NC				
Rated insulation voltage Ui	690V				
Rated operating voltage Ue	660V/690V and below				
Rated impulse withstand voltage Uimp	6kV				
Auxiliary circuit	Ith	5A			
	AC-15	220V/230V 2.5A; 380V/400V 1.5A			
	DC-13	220V 0.2A			
Protection class	IP00				



2.2 See Figure 1 for relay operation time - current characteristic curve (3-phase, thermal state)

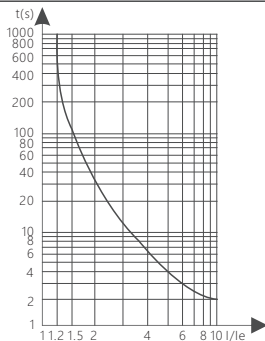


Figure 1 Relay time - current characteristic curve

### 3 Installation

#### 3.1 Installation

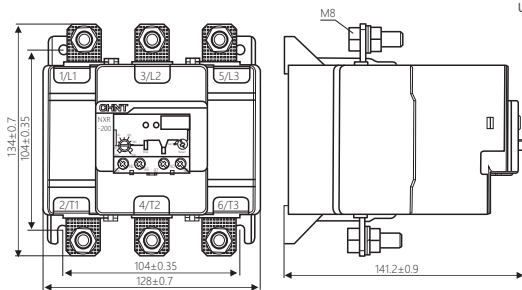


Figure 2 Product overall dimensions (NXR-200)



Unit: mm

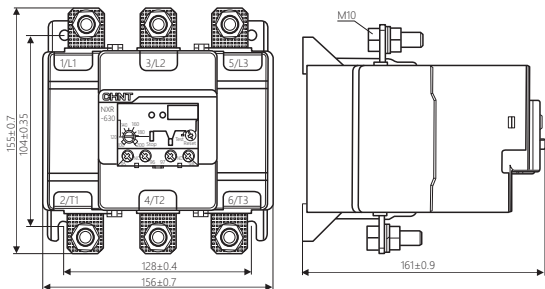


Figure 3 Product overall dimensions (NXR-630)

Table 3 Wiring torque reference

				S (mm <sup>2</sup> )						
	 M8 10N.m		NXR-200	—	—	—	—	25~95	—	
	 M10 20N.m		NXR-630	—	—	—	—	50~2x185	—	
	M3.5  1.2N.m		NXR-200 NXR-630							 A > 3.5mm, L < 8mm
				mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>	
				0.75~2.5	0.75~2.5	0.75~2.5	0.75~2.5	0.75~2.5	0.75~2.5	



## 3.2 Operation and commissioning

Table 4 Indicator status

Indicator status	Circuit working status
Green light flashing, red light off	Normal
Green light flashing, red light on	Overload delay
Green light on, red light flashing	Phase-failure delay

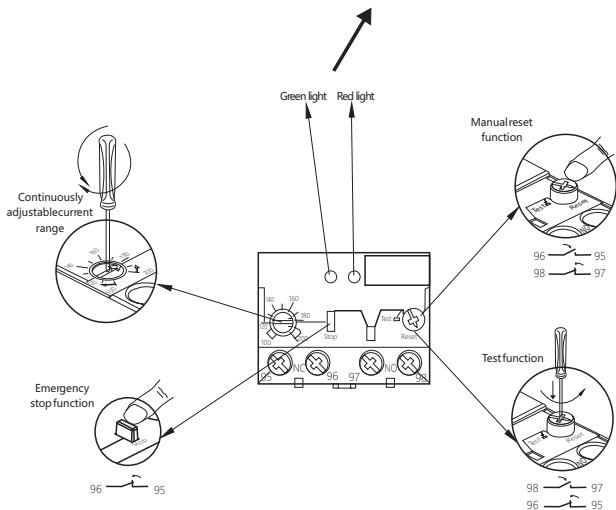


Figure 4 Installation and commissioning diagram



## 4 Maintenance

Clean the dust on the electronic overload relay timely. Conduct product test and maintenance every half a year to ensure the smooth operation of the product and the good contact of NO and NC contacts. Tighten the terminal screws with specified torque and align the load protection capability of the electronic overload relay according to commissioning requirements.

Please be careful when handling and installing the relay. It is prohibited to move the product by crane so that the product will not be damaged and its protection characteristics will not be changed due to strong impact.

**Table 5 Analysis and Troubleshooting of Faults**

Symptoms	Cause analysis	Troubleshooting method and precautions
Misoperation of thermal relay without the motor being overloaded	Size is too small	Change to product with bigger size.
	The set current value is smaller than the actual operating current of the motor.	Fine tune the cam clockwise so that the set current matches the actual motor current.
	Strong shock or vibration	Check installation status and conduct troubleshooting. Do not place the product in environment with strong shock or vibration.
Thermal relay does not operate.	The size is too big	Change to product with smaller size.
	The set current value is bigger than the actual operating current of the motor.	Fine tune the cam counter-clockwise so that the set current matches the actual motor current.
Thermal relay does not work.	The product is not reset.	Press the reset button to reset the relay.
	Auxiliary contacts are not powered-on.	Replace thermal relay.
	Main circuit or auxiliary circuit is burnt.	Replace thermal relay.



## **5 Environmental Protection**

In order to protect the environment, the product or product parts should be disposed of according to the industrial waste treatment process, or be sent to the recycling station for assortment, dismantling and recycling according to local regulations.

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**CHNT**

**QC PASS**

NXR-200~630

Electronic Overload Relay

IEC/EN 60947-4-1

**Check 21**

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Test date: Please see the packing

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**ZHEJIANG CHINT ELECTRICS CO., LTD.**

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**User Instruction**

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